

What is claimed is:

1. A fitting substrate for connection to which first and second kinds of signal processing substrates mutually transmitting and receiving signals are fitted, comprising:

a substrate main body;

first signal connection point groups formed on said substrate main body and connected to said first kind of signal processing substrate;

second signal connection point groups formed on said substrate main body and connected to said second kind of signal processing substrate; and

wiring pattern groups for electrically connecting mutually corresponding signal connection points of said first and second signal connection point groups to one another;

wherein said first and second signal connection point groups are respectively formed so that mutually corresponding signal connection points can be arranged substantially horizontally on the same plane, and said wiring pattern group is formed substantially linearly in match with the arrangement of each of said signal connection points.

2. A fitting substrate for connection as defined in claim 1, wherein said first and second signal connection point groups are so formed on the same plane as to extend in a first direction and said wiring pattern group is so formed as to extend in a second direction intersecting orthogonally said first

direction.

3. A fitting substrate for connection as defined in claim 2, wherein N1 of said first kind of signal processing substrates and N2 of said second kind of signal processing substrates are fitted to said substrate main body, said first signal connection point group is constituted by said N2 of signal path groups adjacent to one another in said second direction and said second signal connection point group is constituted by said N1 of signal path groups adjacent to one another in said second direction.

4. A fitting substrate for connection as defined in claim 3, wherein said substrate main body is formed into multiple layers and said wiring pattern group is constituted by a plurality of wiring layers that said substrate main body has.

5. A fitting substrate for connection as defined in claim 4, wherein said first signal connection point group is constituted by a plurality of first signal connection rows adjacent to one another in said second direction, said second signal connection point group is constituted by a plurality of second signal connection rows adjacent to one another in said second direction, and each of said connection groups constituted by at least one of said first signal connection rows and at least one of said second signal connection rows is connected by said wiring pattern group by using different ones of said wiring layers.

6. A fitting substrate for connection as defined in claim

4, wherein said N2 of said signal path groups of each of said signal processing substrates is connected by said wiring pattern group by using different ones of said wiring layers.

7. A fitting substrate for connection as defined in claim 4, wherein said wiring pattern group is formed to a length of 100% to 120% with respect to a distance between said mutually corresponding signal connection points.

8. A fitting substrate for connection as defined in claim 7, wherein said wiring group is formed linearly with the exception of portions in the proximity of said mutually corresponding connection points.

9. A fitting substrate for connection for use in a disk array control apparatus to which memory substrates, bus switch substrates for controlling connection with said memory substrates and adaptor substrates for gaining access to said memory substrates through said bus switch substrates are fitted, comprising:

a substrate main body;

bus switch signal connection point groups formed on said substrate main body and connected to said bus switch substrates;

adaptor signal connection point groups formed on said substrate main body and connected to said adaptor substrates;
and

wiring pattern groups for electrically connecting mutually corresponding signal connection points of said bus

switch signal connection point group and said adaptor signal connection point group;

said bus switch signal connection point group and said adaptor signal connection point group being formed in such a fashion that said mutually corresponding signal connection points are arranged substantially horizontally on the same plane;

said wiring pattern group being formed substantially linearly in match with the arrangement of each of said signal connection points.

10. A disk array control apparatus comprising:

a fitting substrate for connection;

memory substrates fitted to one of the surfaces of said fitting substrate for connection;

bus switch substrates fitted to said one surface, for controlling connection with said memory substrates; and

adaptor substrates fitted to said one surface, for gaining access to said memory substrates through said bus switch substrate;

said fitting substrate for connection including:

bus switch signal connection point groups connected to said bus switch substrates;

adaptor signal connection point groups connected to said adaptor substrates; and

wiring pattern groups for electrically connecting

mutually corresponding signal connection points of said bus switch signal connection point group and said adaptor signal connection point group;

said bus switch signal connection point group and said adaptor signal connection point group being formed in such a fashion that said mutually corresponding signal connection points are arranged substantially horizontally on the same plane;

said wiring pattern group being formed substantially linearly in match with the arrangement of each of said signal connection points.